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| 09/787,555  | 03/20/2001  | Takanori Yokoyama    | 503.39781X00        | 3956             |
| 24956 7590 03/11/2009<br>MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.<br>1800 DIAGONAL ROAD<br>SUITE 370<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| ABEL JALIL, NEVEEN  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 2165  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/787,555

**Applicant(s)**

YOKOYAMA ET AL.

**Examiner**

NEVEEN ABEL JALIL

**Art Unit**

2165

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/21/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Remarks

1. In response to Applicant's amendment filed on January 21, 2009, claims 9 and 10 remain pending.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al., *Gateway Application for Automotive Network System "BEAN"*, SAE Pub. March 1-4, 1999 (from hereon in Tanaka et al.) in view of Doyle (U.S. Patent No. 5,815,071) –Both references were previously cited.

As to claim 9, Tanaka et al., teaches a distributed computer system for an automobile comprising:

a first computer network to which at least one device that sends or receives messages without demand is connected (See Page 1, two networks LAN's connectivity is described, wherein it is unclear what is meant by "without demand" and therefore it is taken to be continuously or at a predetermined period);

a second computer network to which at least one device that sends or receives messages in response to an event or demand is connected (See page 3, two networks); and

a gateway connected to said first and second computer networks (See Page 1, gateway between networks (LAN's) is described), said gateway comprising:

queue means that stores the messages received by said message receiving means (See page 4, paragraph 4, both LAN networks are capable of sending and receiving messages);

message receiving means that receives messages which said first computer network sends messages (See page 4, paragraph 4, both LAN networks are capable of sending and receiving messages);

event message sending means that produces a message from the data stored in said queue means when said message value change detecting means detects the change of the value of the data, and that delivers the produced message to said second computer network (See page 3, wherein the gateway system transmits diagnostic messages (i.e. events), and see page 4, paragraphs 1-2, wherein "negative response" is taught (i.e. change in value that would necessitate retransmission)),

wherein said at least one device connected to said first computer network that sends or receives messages is an engine controlling device or an adaptive cruise control (ACC) controlling unit (See page 4, Figure 10, shows Engine control),

wherein said at least one device connected to said second computer network that sends or receives messages in response to the event or demand is a navigation system or an internet terminal (wherein a network can be the Internet).

Although Tanaka et al. hints at a buffer to store messages by using a queue it does not explicitly recite message value change detecting means that detects a change of the value of the data included in each of the messages stored in said buffer means.

Doyle on the other hand explicitly teaches a message buffer (See Doyle column 7, lines 35-50).

Tanaka et al. and Doyle which are from analogous art related to distributed controls systems for vehicle operations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Tanaka et al. as modified by the teachings of Doyle to include message buffer because it allows for more efficient store and forward operations of only timely and required messages.

Tanaka et al. still does not teach the claimed periodic message receiving means that receives messages which said first computer network sends periodically;

wherein said message value change detecting means detects a change of the value of the data by checking whether or not the this-time-value of the received message is different from the last-time-value of the received message.

Doyle teaches periodic message and periodic message receiving means that receives messages which said first computer network sends periodically (See Doyle column 6, lines 38-50);

wherein said message value change detecting means detects a change of the value of the data by checking whether or not the this-time-value of the received message is different from the last-time-value of the received message (See Doyle column 5, lines 40-60);

periodic message sending means that delivers periodically the data stored in said periodic message (See Doyle column 2, lines 19-24, also see Doyle column 5, lines 14-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Tanaka et al. by the teachings of Doyle to include periodic and event message buffer storing that detects a change of the value of the data included in each of the messages stored buffer because it provides for efficient way of communicating between diverse networks and data transfer.

As to claim 10, Tanaka et al. teaches a distributed computer system for an automobile comprising:

a first computer network in which a message generated, without demand, at a predetermined time interval exists (See corresponding rejection in claim 9 under Tanaka et al. and Doyle, wherein it is unclear what is meant by “without demand” and therefore it is taken to be continuously or at a predetermined period);

a second network in which a message generated in response to an event or demand exists (See corresponding rejection in claim 9 under Tanaka et al.); and

a gateway connected to said first and second network, having a buffer part and a processing part (See corresponding rejection in claim 9 under Tanaka et al. and Doyle),

wherein said processing part of said gateway causes to store in said buffer part the message generated by said first network at a predetermined time interval, producing a message from the data stored in said buffer part when a change of the value of the data is detected by checking whether or not the this-time-value of the received message is different from the last-

time-value of the received message (See corresponding rejection in claim 9 under Tanaka et al. and Doyle), and

delivering said produced message to said second network (See corresponding rejection in claim 9 under Tanaka et al. and Doyle).

### ***Response to Arguments***

4. Applicant's arguments filed on 1/21/09 have been fully considered but they are not persuasive.

Applicant's argument that "there is no teaching or suggestion in Tanaka of the distributed computer system for an automobile as recited in claims 9 and 10 of the present. Tanaka does not disclose the combination of features that a first device different than a second device communicate across a gateway" is noted but not deemed to be persuasive.

Tanaka is introduced to teach a gateway connecting two networks wherein on each side of the connection, there exists a computer communicating in a different manner than a second computer on the opposite side of a gateway, as asserted in Applicant's remarks page 6, line 3. The purposed behind a gateway as it is inherent and well known in the art, is to allow two devices the ability to connect and communicate with each other (two heterogeneous networks, for example). The reference to a "distributed system" is only made in the preamble. Furthermore, the claims do not suggest the storage of files or events in a distributed manner, instead, the claims only suggest a gateway for communicating between two networks of different characteristics (examples can be LAN and WAN).

Applicant's argument that "there is no disclosure in the prior art of the transmission of information between an information system network, in which information is transmitted in response to an event, and a control system network in which information is transmitted at a constant period" is noted but not deemed to be persuasive.

Tanaka is cited to teach two heterogeneous networks (i.e. entertainment LAN and Body control LAN) communicating together across a gateway.

Doyle is cited to teach one type of a network that is based on logging and communicating all messages sent periodically and those that are based on events related to vehicle controls when changes are detected (i.e. event or demand).

Therefore, it is reasonable and well within the knowledge of one of ordinary skill in the art to combine the prior art references to achieve the claimed invention since Tanaka's teachings of two differing networks communicating across a gateway wherein at least one network is based on periodic messages (see Tanaka's introduction page 1, and see page 4, column 1, wherein it is stated that "ECU continues to send messages" thus clearly teaching without demand) can be complemented with Doyle's specific type of network communicating periodically and based on event or demand since the functionality and the purpose behind a gateway to simply just that; hence, leading to two divergent networks (of differing types) to communicate together by some conversion means.

Note: Applicant's admitted prior art under background of the invention line 17 discloses that it's prior art for networks to communicate periodically.

### ***Conclusion***



5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neveen Abel-Jalil  
Primary Examiner  
March 9, 2009  
/Neeven Abel-Jalil/

Primary Examiner, Art Unit 2165